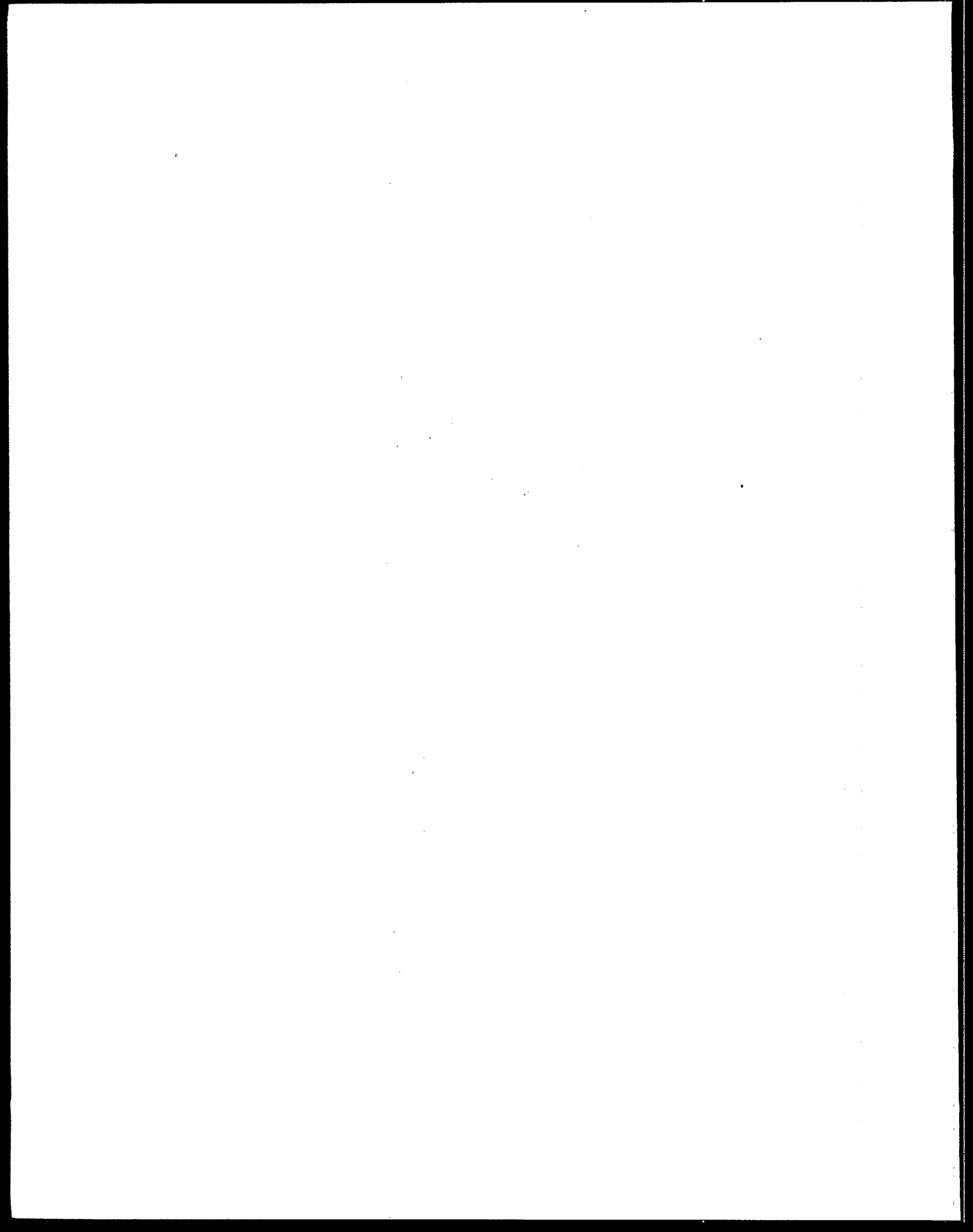




Successful Practices in Title III Implementation

**Chemical Emergency
Preparedness and Prevention
Technical Assistance Bulletin**

**Cameron County, Texas
Bucks County, Pennsylvania
Harford County, Maryland
Dallas County, Texas**



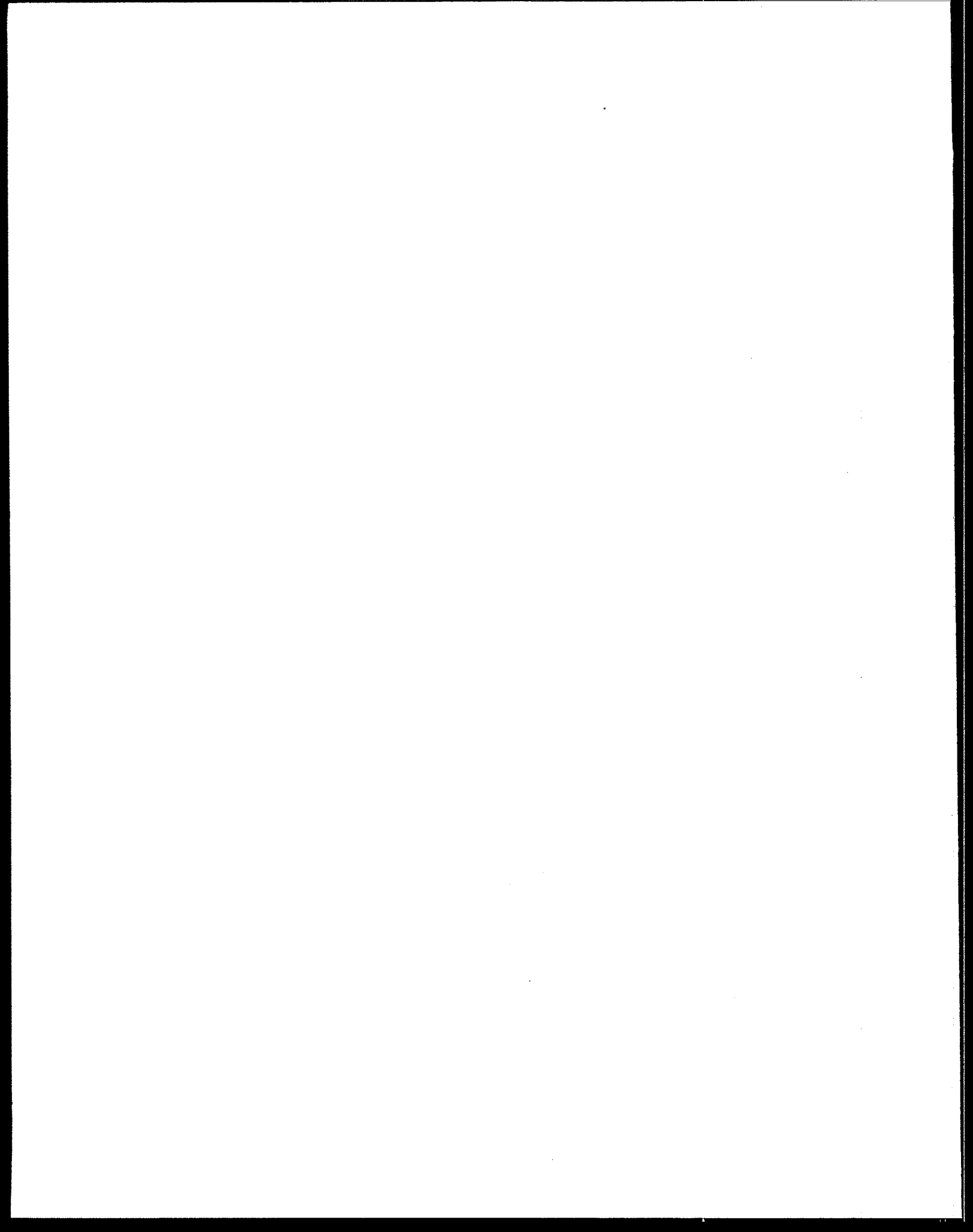
ABOUT THIS BULLETIN

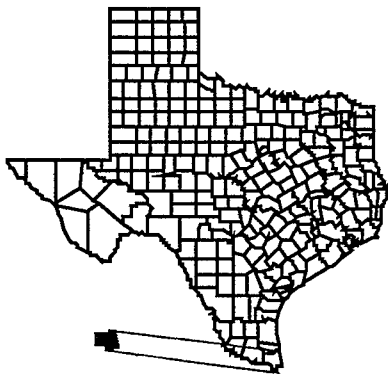
This is another in a series of bulletins EPA is issuing to provide examples of implementation programs and strategies of the Emergency Planning and Community Right-to-Know Act of 1986, known as Title III, that are innovative or have proven effective. The purpose of these bulletins is to share information on successful practices with Local Emergency Planning Committees (LEPCs), State Emergency Response Commissions (SERCs), fire departments, and other Title III implementing agencies throughout the country in the hope that such information will prove useful to other SERCs and LEPCs as their programs develop and evolve.

Elements from the programs featured here may be transferable to other programs in similar communities or with similar situations. The bulletins provide information on a variety of practices — for example, planning, compliance, information management, hazard analysis, and outreach. The particular topics covered in each LEPC or SERC profile are listed at the upper right hand corner of the first page of the profile for easy reference.

The descriptions of the innovative and effective implementation programs and strategies are not exhaustive. They are meant to provide readers with enough information to determine if a particular approach is applicable to their own situation. Each profile includes a contact person who can provide more detailed information.

If you know of Title III implementation efforts that you feel would be of interest to others, please contact your EPA Regional Chemical Emergency Preparedness and Prevention coordinator (see list on the last page) or the Emergency Planning and Community Right-to-Know Information Hotline at (800) 535-0202.





**International Coordination
Training
Outreach
Compliance
Funding**

CAMERON COUNTY, TEXAS

LEPC:	19 members, including elected officials and health, police, emergency management, fire, emergency medical service, local hospital, industry, railroad, media, and chamber of commerce representatives.
Population:	125,000
Facilities:	59 reporting facilities, including distribution and warehousing facilities, fertilizer manufacturers, pesticide distributors, water treatment plants, gas stations, paint mixing suppliers, and transporters.

Cameron County, Texas, is a primarily agricultural area with a large amount of tourism located at the southern tip of the state. Brownsville is the county's largest city and lies across the Rio Grande from the neighboring city of Matamoros, Tamaulipas, Mexico. Because of its proximity to the Gulf of Mexico, the Cameron County Local Emergency Planning Committee (LEPC) must prepare for off-shore response actions as well as land-based response actions. And because the county is on the Mexican border, the LEPC must be prepared for international coordination and communication in the event of an emergency on either side of the border.

Cameron County has few chemical production facilities, but is home for a large import and export trade. For this reason, the LEPC is primarily concerned with the hazardous materials stored in warehouses in the area and transported through the county by rail or by truck on Highways 77 and 83.

LEPC ACTIVITIES

International Coordination. International emergency planning agreements between the United States and Mexico call for bilateral action to protect the border environment. These agreements emphasized the need for the Inland Joint Response Team (JRT) to support and assist sister cities located on the U.S./Mexico border in coordinating emergency preparedness and response. The Cameron County LEPC has responded to these agreements by establishing close ties and coordinating emergency response

plans with its Sister City of Matamoros. In particular, the LEPC has worked with a Committee Locale de Ayuda Mutua (CLAM) in Matamoros, the Mexican equivalent of an LEPC.

Representatives from the Quimica Fluor plant in neighboring Matamoros and the Cameron County LEPC chair agreed that a full-scale international exercise to test chemical emergency response capabilities along the border might be extremely beneficial to all persons involved. The first step in making the exercise a reality was in clearing the operation with federal, state, and local authorities from the U.S., as well as representative organizations on the Mexican side. After five months of extensive planning done exclusively by volunteers, the exercise "Operation Amigo" began.

Operation Amigo involved a staged chemical spill of sufficient toxicity to require the aid of the emergency response team at the Quimica Fluor plant in Matamoros. The exercise tested both international communication capabilities and the expediency of customs and immigration procedures for moving response personnel and equipment across the U.S./Mexico border.

The timely arrival of the Matamoros response team at the accident scene in Brownsville made the exercise a success. But Operation Amigo also exposed easily overlooked deficiencies in existing emergency plans, allowing participants to learn from their mistakes during a harmless exercise. For example:

- One of three hospitals in the area (thirty miles north of Brownsville) has remedied its lack of contamination suits by acquiring a number of contamination suits and a portable decontamination unit.
- EPA Headquarters found during the exercise that its computerized communication link could not access international numbers to contact Mexican authorities; the Agency has since rewritten the communication program to allow access to foreign countries in emergency situations.
- The Cameron County LEPC learned that they should have immediately contacted a representative from the Brownsville Irrigation District after a chemical accident occurs. The Brownsville Irrigation District pumps water from the nearby Rio Grande river via "resecas," or old river beds, to the water treatment facility. For this reason, drainage into the resecas during a chemical spill would seriously endanger the purity of the water supply if the pumping were to continue.

With the discovery of these shortcomings during the Operation Amigo exercise, improvements in the emergency plans could be made before an actual chemical accident occurs.

Due to the success of Operation Amigo, the LEPC took part in two conferences of note. On June 6 and 7, 1990, the U.S./Mexico Inland JRT Conference was held in Brownsville and was attended by officials from the fourteen sister cities, as well as federal and state representatives from the U.S. and Mexico. The conference highlighted both the problems of language, customs, and governmental structure for emergency response along the border, and the need to overcome such obstacles. Cooperation between the cities of Brownsville and Matamoros, particularly concerning Operation Amigo, was cited as a promising sign of effective joint inland response across international borders.

On July 24, 1990, members of both the Cameron County LEPC and the CLAM organizations were invited to attend the Latin America and Caribbean Training Seminar on the Awareness and Preparedness for Emergencies at Local Levels (APELL) in Metepec, Toluca, Mexico. The APELL program was developed in mid-1987 by the United Nations Environment Programme to foster coordinated emergency planning for chemical accidents throughout the world. Representatives from the LEPC and CLAM described Operation Amigo and their corresponding contributions to the Sister City program. The conference stressed the need for such cities to work together for chemical safety, and presented some of the more global issues in the chemical safety and emergency planning arenas. The chair of the Cameron County LEPC summed up the message of the conference by saying, "In emergency response we must see borders as joining two countries, not separating them."

Training. The Cameron County LEPC has succeeded in sparking public interest through offering free hazardous materials training. One of the first services performed by the LEPC was to ask the physician from the Matamoros Quimica Fluor facility to give a two-hour chemical accident awareness course to staff members from Cameron County hospitals. In June of 1989, EPA Region VI gave a two-day "First Responders" course, drawing 150 people from Brownsville/Matamoros and about 65 people from nearby Weslaco. The course described different chemical hazards and equipment, explained the uses of the CAMEO software system, outlined hazards analyses methods, and set up several table-top exercises for its participants.

Upon the request of the Cameron County LEPC, local industry joined in the move to offer hazardous materials training. Approximately 80 persons from local fire and police departments, emergency medical services, government agencies, and various industries attended a two-hour hazardous materials awareness course offered on two successive days by the Chemical Leaman company. Groendyke Trucking, a local shipping company, sponsored a two-hour preparation session for Operation Amigo between members of the Quimica Fluor Hazmat team and local police. In October 1990, Union Pacific also offered training for local police and emergency response units in emergency planning for mitigating rail accidents involving the transfer of chemicals; more than 50 people attended.

Outreach. The Cameron County LEPC hopes to improve their ability to communicate the Title III message to both local citizens and members of industry. The monthly LEPC meeting is open to the general public, including citizens of neighboring towns in Mexico. The LEPC sends out monthly announcements summarizing current information on LEPC issues to 200 local government, emergency medical service, industry, and Texas SERC representatives.

At the present time, the Cameron County LEPC meets on occasion with various clubs and community organizations for lunchtime presentations. Local print and television media provide coverage for some LEPC events, and the LEPC hopes to obtain free space to promote their activities in local phone books. The LEPC ultimately wants to get people involved on a more local level by having industry representatives meet with neighborhood associations to discuss their facilities' emergency plans. In this way, the LEPC believes residents will become more aware of emergency preparedness and the chemical hazards that exist in their own community.

The Cameron County LEPC is working to enlist the aid of the Texas Agricultural Extension Service to spread the emergency preparedness and response message to residents of the State of Texas. The extension service is based at Texas A&M and is funded through grants and contracts, as well as through the county, state, and federal government budgets. The LEPC has proposed that some members of the extension service be trained in emergency response procedures to better educate the public on what to do in case of a chemical emergency.

Compliance. Facilities are required under the Texas Hazard Communication Act to report Tier II information as outlined in section 312 of Title III. Compliance under the requirements of Title III and the Texas Hazard Communication Act has proven to be difficult to ascertain for the Cameron County LEPC. Many companies that transport chemicals through and within the county do not report on the hazardous chemicals they store within the county, claiming that chemicals stored in their vehicles and warehouses are under active shipping papers and exempt under sections 302-303, and 311-313. However, at any given time, these chemicals may be either stored for days in warehouses or remain unmoved in tanker trucks. The LEPC is contacting these companies to explain the Title III requirements and the spirit of the law. Letters have been sent to almost 200 warehouses and transportation companies in an attempt to identify the hazardous chemicals present on-site.

Funding. In the past, the Cameron County LEPC has received donations from local banks, hospitals, and industry for receptions during various training sessions and during the Operation Amigo exercise. In addition, the LEPC has asked local businesses to help defray the cost of several other items such as a VCR for recording hazmat training cable broadcasts. Additional sources of funding consist of postage donated monthly by local industry and a small grant from a local foundation. The grant has allowed the LEPC to do more of the things they had wanted to do (e.g., Operation Amigo).

LESSONS LEARNED

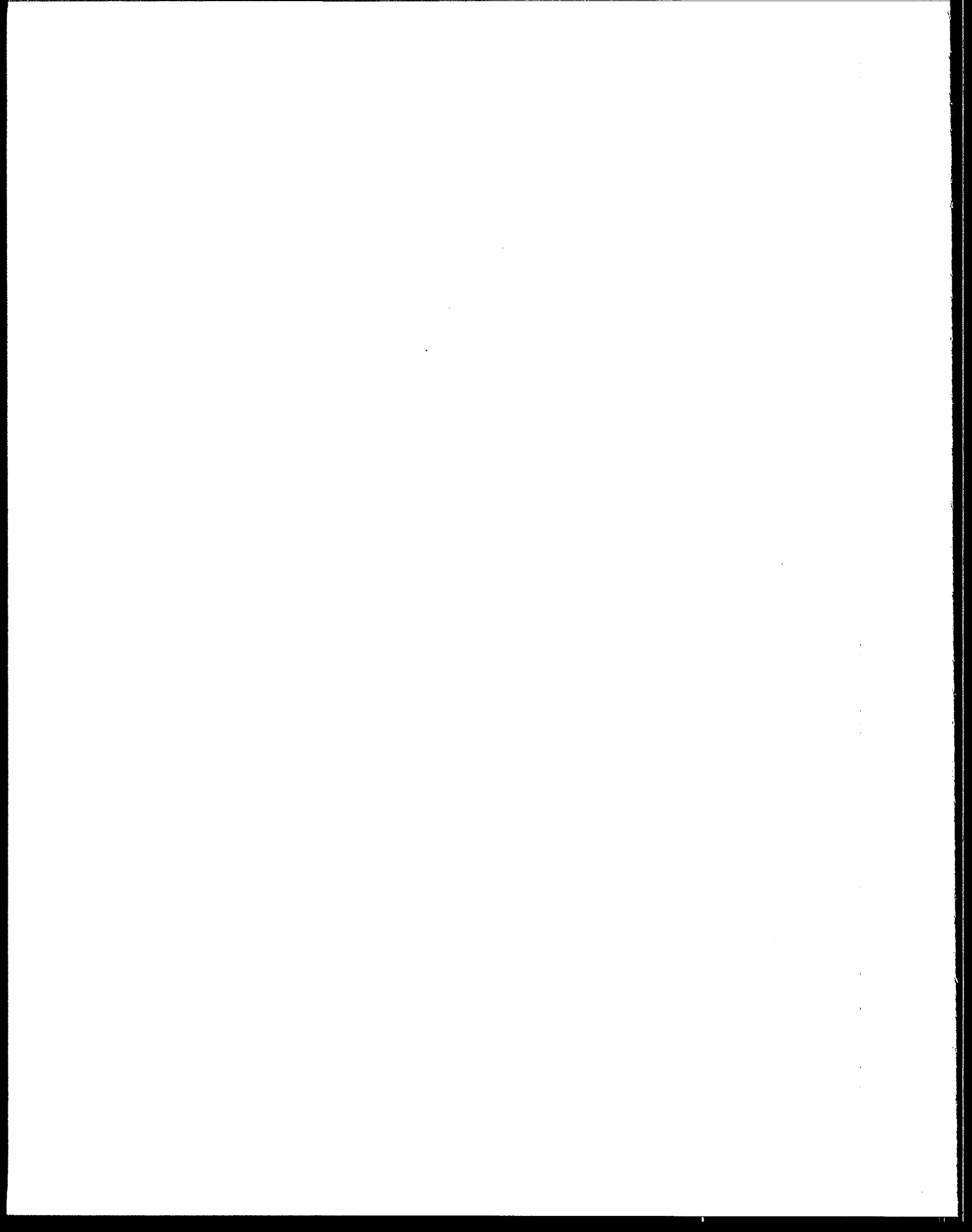
Consistent Meetings Mean Continuous Outreach. Contact with the community is needed if emergency preparedness is to be on people's minds. Monthly meetings are very important; if the community gets into the habit of participating every month, emergency preparedness and response will remain a fresh subject for all those who participate.

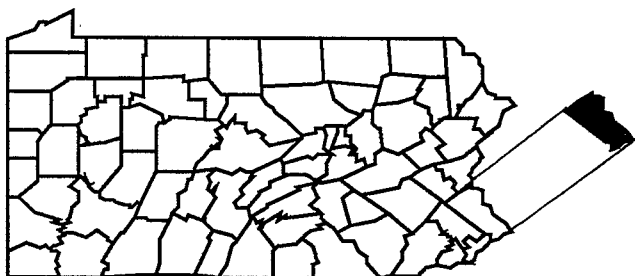
Emergency Response Exercises Should be a Team Effort. Because members of the community respond to chemical accidents together, they should train together as well. On the day after Operation Amigo, for example, an evaluation of the exercise occurred in which each person who participated explained what he/she had learned to the entire group. In this way, people became aware of the different responsibilities and problems of different responders. All those involved learned that training and exercising together is the key to organized emergency response. The Cameron County LEPC views this post-exercise evaluation as essential for people to know what others are doing in case of an emergency, so the community can work as a team.

Practice Makes Perfect. The best way to realize the needs of an emergency plan is to stage exercises, as the Cameron County LEPC did with Operation Amigo. The LEPC found that problems, like international communication and notification of the local water treatment facility, became apparent only as they responded to a simulated emergency. These issues can be addressed now before a real accident happens.

Always Think Positively. Emergency planning and education should be conducted in a positive, non-threatening manner, and it should prove helpful to industry as well as the community in identifying hazards. Prior to Operation Amigo, the Cameron County LEPC realized that the county lacked fully encapsulated suits for use during the mitigation of a chemical accident. As of September 1989, the nearest such suit on the United States side of the border was in Corpus Christi, approximately 250 miles away. Local industry, exemplifying its positive working relationship with the LEPC, donated four fully-encapsulated suits to the Brownsville Fire Department and decontamination unit.

Contact: Jackie Lockett, Chair
Cameron County LEPC
143 E. Price Road
Brownsville, TX 78521
(512) 546-1161





LEPC Organization
Information Management
Funding
Planning
Compliance
Training

BUCKS COUNTY, PENNSYLVANIA

LEPC:	15 members, including representatives from law enforcement, fire service, emergency management, emergency medical service, civil defense, local and state government, industry, transportation, county health department, local community college, and the media.
Population:	500,000
Facilities:	290 facilities have submitted Tier II reports and 99 facilities are subject to sections 302-303. Reporting facilities include chemical manufacturers, metal processors, federal facilities, coating manufacturers, water and sewer authorities, gas stations, specialty gas processors, distributors, swim clubs, and farms. 44 facilities reported under section 313.

Bucks County is situated in southeastern Pennsylvania just over the Delaware River from New Jersey. Part of the five-county greater Philadelphia metropolitan area, Bucks County is located northwest of the New Jersey Turnpike between Philadelphia and Trenton, New Jersey. Industrial facilities and distributors are predominantly present both in the county's southern portion and in the lower half of its western edge. The central portion of the county is largely residential with scattered farmlands, while upper Bucks County is essentially a rolling rural area dotted with small municipalities.

LEPC ACTIVITIES

LEPC Organization. Prior to the enactment of the Emergency Planning and Community Right to Know Act of 1986 (EPCRA or commonly known as Title III), industry in the lower portion of the county had begun to address chemical emergency preparedness under the Chemical Manufacturers Association's Community Awareness and Emergency Response (CAER) program, in conjunction with Burlington County, located across the Delaware River in New Jersey. With the enactment of Title III, the CAER program essentially melded into the Bucks County Local Emergency Planning Committee (LEPC) program.

The assistance of a professional management consultant, provided to the Bucks County LEPC under a grant from Rohm and Haas, a large Philadelphia-based chemical company, proved to be critical in the LEPC's first four months. The consultant led the group in initial "team building" exercises to mold the committee into a cohesive group with a defined direction and objective. Team building highlighted the philosophies of each of the LEPC members through the use of group interaction, role-playing scenarios, addressing problems in small groups, and various other ways. As the members discussed their ideas about the purpose behind the Title III emergency preparedness message, the goals of the LEPC began to develop and take shape. As the members became more comfortable working with one another, they began to work more as a team than just a group of individuals.

The initial leadership provided by the management consultant helped the Bucks County LEPC members coalesce rapidly as a team. After the team concept was developed, the LEPC was able to organize themselves into appropriate subcommittees and to develop their own administrative procedures. The LEPC was divided into six subcommittees to direct the tasks of administrative duties, public information, training, emergency services liaison, data and information management, and emergency planning. To ensure active participation in the LEPC, administrative rules require LEPC members to be on at least two subcommittees, and to review continued membership of anyone who misses two LEPC meetings in any year. The Bucks County LEPC credits its ongoing success as a well-organized and active LEPC to the indispensable aid of the management consultant during those first four months.

Information Management. The Bucks County LEPC data management subcommittee originally decided to load the Emergency Information System/Chemical (EIS-C) software package on available IBM-compatible computers at the county emergency management office. The EIS/C package records chemical, facility, transportation, and other planning and response information and graphically displays such information on color maps. After several months of use, however, members of the LEPC concluded that the EIS-C program did not fit the needs and budget of the LEPC, and that a substitute program would be more beneficial.

In place of the EIS-C program, the Bucks County LEPC established a simpler, dual system consisting of an IBM-compatible database using dBase IV software for hazardous materials data, and the Macintosh version of the CAMEO computer software system, developed by EPA and the National Oceanographic and Atmospheric Administration, for emergency response planning. The LEPC found the new dual system of dBase IV and CAMEO to be comprehensive and easy to use for the LEPC, while remaining within its limited budget constraints. The LEPC plans to implement the CAMEO-DOS version to consolidate their entire information network on the available IBM-compatible computers.

All personal computers in the offices of the Bucks County Emergency Management Agency have been linked together as a network. The dBase IV hazardous materials database was added to the network to provide ready access to information on facilities, budgeting, and other administrative functions. The Bucks County Communications Center, the central fire, rescue and police dispatch center for the county, can access this database for communicating hazardous materials information to emergency responders.

The Data Management subcommittee helped the Communications Center to develop a revised computer-aided dispatch system, which will have greater capabilities to handle information related to hazardous materials incidents. Before such a system was in place, dispatchers handled chemical emergency calls in the same manner as other emergency calls. During a chemical emergency call, however, the revised dispatch system prompts dispatchers with a series of questions to ask facilities about the nature of the accident to determine the most appropriate way to respond.

Funding. The Bucks County LEPC incorporated as a non-profit corporation and received tax-exempt status from the Internal Revenue Service in 1989. This step improved the LEPC's ability to solicit monies from facilities and from the county directly, avoiding the delay of applying for funding through county government channels.

In order to meet the budget requirements for 1988 and 1989, the LEPC proposed to the County Commissioners a dollar-matching concept between facilities and the county government. To provide an indication of what each facility's "fair share" of the industry contribution should be, the LEPC has analyzed data supplied on Tier I and Tier II reports and prepared a graduated scale of suggested contribution amounts. These voluntary contributions are solicited by a letter sent to each facility and municipality annually.

In each of the last three years, the Bucks County LEPC has received \$27,500, \$36,750, and \$35,250 respectively from the volunteer contributions for a total to date of \$99,500. This figure does not include a number of "in-kind" donations of equipment and services given to the LEPC in the last several years. The LEPC credits much of its success in the past to its ability to financially undertake major endeavors, including establishment of a Hazardous Incident Response Team (HIRT), a data management system, and hazardous materials training and education programs.

A permanent revenue-raising program that will replace the voluntary contribution approach recently passed in the Pennsylvania state legislature. This program, outlined in Pennsylvania's Hazardous Material Emergency Planning and Response Act, allows the state and its numerous counties to levy chemical reporting fees on facilities which report under section 312 at or above the EPA-established threshold of 10,000 pounds for hazardous chemicals, and 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances (EHSs). The fees are intended to provide incentive for facilities to self-police Title III reporting, and thus to foster a safer business and community while reducing the chemical registration paperwork load for the LEPCs, local fire departments, and the Pennsylvania Emergency Response Commission (PERC).

Planning. The Bucks County LEPC succeeded in finding a number of creative ways in which to foster effective emergency planning within the county. The LEPC developed a county emergency plan that taps into existing emergency management resources, and helped in the development of compatible municipal and facility plans. The LEPC also identified areas of the county vulnerable to chemical incidents.

As required by Title III, the Bucks County LEPC created a chemical emergency response plan for the county. In order to ensure simplicity and compatibility with existing plans for other types of emergencies, the LEPC has developed the county plan within the framework of the Bucks County Disaster Operations Plan mandated by the Pennsylvania Emergency Management Act. Because many of the mechanisms already in place to handle other types of public emergencies are also used to mitigate hazardous materials incidents, the LEPC felt that expanding on the existing emergency plan would be most efficient. The county plan includes a general operation philosophy in addition to a standard operating procedure (SOP) for hazardous materials incidents, an SOP for an incident command system, and an SOP for the County Communications Center for use in hazardous materials emergencies. The LEPC reviews and updates the county emergency response plan annually during the first quarter of each year.

The county plan is supplemented both by municipal preparedness plans and by site-specific chemical emergency plans. Using the authority of Title III section 303(d)(3), the LEPC has asked facilities to submit such site-specific plans to the LEPC. In 1988, the Bucks County LEPC prepared both a Planning Guide for Site-Specific Plans and a sample site-specific plan to assist facilities in developing adequate response plans. Each facility is encouraged to work jointly with the municipality in which it is located and with the emergency responders who will be first on the scene in the event of an emergency. In order to ensure universal agreement on emergency response procedures, the LEPC emphasizes that each plan should contain a statement of joint development signed by both the facility's emergency coordinator and the municipal emergency management coordinator before the plan will be accepted for review by the LEPC.

The Bucks County LEPC also completed a county-wide vulnerability analysis, which is an estimation of the geographical area that may be affected as a result of a spill or release from a specific location. This analysis, based on information submitted to the LEPC in the site-specific plans, included identification of transportation routes and a review of emergency preparedness at the municipal level throughout the county. In the upcoming year, the LEPC plans to analyze the risk from facilities in the counties which adjoin Bucks County. The LEPC also plans to develop a "Field Manual" for incident commanders of hazardous materials emergencies. The manual will outline appropriate decision-making steps to mitigate chemical emergencies for a given on-scene situation.

As a cost-effective way to further assist local emergency responders in the mitigation of chemical emergencies anywhere within the county, the LEPC decided to develop a Hazardous Incident Response Team (HIRT). The HIRT, composed of fire and emergency medical service personnel, is a volunteer organization with no specific legal authority to respond to a chemical emergency; the HIRT responds at the request of the local first responders. Members of the HIRT elect a county coordinator, who is approved by the Bucks County LEPC, to head the team. Under the county coordinator, three regional coordinators supervise the activities of the HIRT in particular areas of the county.

Compliance. The Planning subcommittee of the Bucks County LEPC conducted an outreach program to identify and educate users of gaseous chlorine. By examining the records of the county health department, the LEPC determined that a large number of chlorine sources exist at sites throughout the county, including water wells and swimming pools. An effort to contact these sources has resulted in both comprehensive planning for chlorine releases and, more significantly, a change from chlorine to less hazardous materials at numerous facilities. An effort has also been made by the LEPC to contact the many small farmsteads in the county's rural areas which may use and store hazardous chemicals during certain times of the year. Letters have been sent to the farms to introduce the LEPC and summarize the reporting requirements under Title III.

Training. About 75 people attended a one-day industrial workshop sponsored by the training subcommittee to train plant managers and facility emergency coordinators on developing site-specific plans. The subcommittee also sponsored a half-day workshop for municipal emergency coordinators and elected municipal officials; representatives of 27 of the county's 54 municipalities attended. The subject matter included an overview of the county Title III plans and the municipal requirements under the Pennsylvania Emergency Management Act. Information from the workshop was sent to those local officials that did not attend.

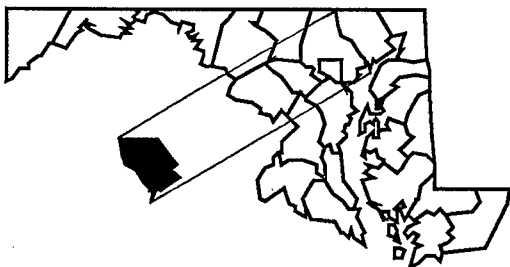
The Bucks County LEPC has put together a comprehensive training program for the county HIRT Team, as well as a program for groups of new recruits. Another major accomplishment of the Training subcommittee was the development of specialized training units for fire, police, and emergency personnel covering the Incident Command System and hazardous materials training. The LEPC expects that such specialized training of all emergency responders will require from two to three years to complete.

LESSONS LEARNED

The Spirit of Volunteerism is Alive and Well. An effective LEPC is one whose members give a lot of themselves. LEPC members should be willing to communicate their ideas and concerns to each other. They should strive to introduce the LEPC and the Title III message to facilities, communities, and emergency responders. Members need the conviction to participate in more than one committee, and must be able to attend meetings regularly. No one can be an LEPC member in name only; it takes a group of people who are willing to volunteer a lot of time and effort.

Be Resourceful with Resources. The ability to undertake major endeavors, from the establishment of a Hazardous Incident Response Team (HIRT) to the development of a data management system, requires a fundraiser to be imaginative. An LEPC needs to use its resources, whether ample or scarce, to its best advantage through creative ideas that stretch each dollar. Development of a reliable source of funding such as a fund-matching system is but one example of a creative way of raising funds, incorporation as a non-profit corporation is another.

Contact: Arlyn Poppen, Chair
Bucks County LEPC
c/o 3 M Tape Manufacturing Division
Green Lane
P.O. Box 119
Bristol, PA 19007-0119
(215) 945-2800, Ext. 3127



Planning
Exercises
Outreach
Training
Funding

HARFORD COUNTY, MARYLAND

LEPC:	40 members, including representatives from police, fire, U.S. Senate Office, Maryland Emergency Management Agency, county departments of health and emergency operations, industry, media, Aberdeen Proving Grounds, public schools, and private citizens (chair: appointee of Harford County Executive).
Population:	185,000
Facilities:	31 facilities under section 302, primarily chemical manufacturers and water treatment plants; 96 facilities under sections 311-312.

Harford County is located in northeastern Maryland at the north end of the Chesapeake Bay. The Susquehanna River forms the eastern border of the county and flows into the Bay. The major transportation routes include Interstate Highway 95, US Route 1, and US Route 40; railroads include Amtrak, the B&O, and US government tracks. The coastal shoreline of Harford County is primarily wetlands, and has been designated as the Susquehanna National Wildlife Refuge. The county also contains the Aberdeen Proving Grounds — Edgewood Facility, a Department of Defense chemical weapons stockpile installation.

The Harford County Council passed Bill No. 90-83, which became effective on October 16, 1990, revising existing county legislation on hazardous wastes. The bill allows for the recovery of all costs (i.e., operational, administrative, personnel, payroll, and legal) incurred during a response action from the individual or organization responsible, immediate reporting of all fixed facility and transportation incidents involving hazardous substances and submission of a written follow-up report within two weeks, right of entry for monitoring and inspection by a representative of the Harford County Department of Emergency Operations (DEO), and civil action authorized in the event of any violation. The LEPC recently received the Chemical Manufacturers Association's Community Awareness and Emergency Response (CAER) achievement award for its coordination of emergency planning between government and industry in Harford County.

LEPC ACTIVITIES

Planning. In order to prepare the comprehensive local response plan, the LEPC in 1988 sent a letter to all facilities which had reported under section 302. The letter requested that a facility response plan, including a map of the site and the surrounding area, be developed, and provided guidelines for the completion of the plan. In 1989, DEO began to conduct facility visits to review facility response plans; prior to the visit, each facility was issued the inspection checklist that would be used to evaluate the facility's plan. At the present time, facility site visits by a member of the sheriff's office are being conducted to serve as the basis for a hazards analysis to be developed in conjunction with the facility and the local fire department.

As part of its Title III plan, the LEPC developed Annex N: Commander's Guide and Check List for Hazmat Incidents, a 24-panel wall chart that summarizes the responsibilities of the lead officials involved in a hazardous materials response. Annex N indicates the individual mission and key activities for each phase (before arrival, on arrival, operational, and close out) of the response for the Incident Commander; Hot, Warm, and Cold Zone Commanders; Police Commander; and Public Information Officer.

The two key chemical emergency planning concerns currently facing the Harford LEPC are the Aberdeen Proving Grounds (APG) and local schools. APG is participating in the Army's Chemical Stockpile Disposal Program (CSDP), under which the Army has been tasked with destroying its unitary chemical weapons, all of which contain extremely hazardous substances. If an incident were to occur at the facility, it could pose a serious threat to the public health and the environment. Although APG is a federal facility and thus is not obligated to comply with Title III, it is closely involved with LEPC activities. Personnel from the installation serve on many of the LEPC's subcommittees, and APG notifies the community in the event of any incidents at the facility. In coordination with the LEPC, APG has developed a chemical emergency contingency plan. The LEPC and APG also conduct joint response exercises and training in the treatment of persons exposed to chemical agents.

Site-specific planning for hazardous materials incidents involving schools, either for releases originating from schools or from nearby facilities potentially affecting schools, became an important issue in 1990. An incident at a local school in which improper storage procedures resulted in the mixing of muriatic acid and chlorine stored for the swimming pool served as an impetus for this program. A cloud of chlorine was produced, and school officials simply ventilated the area without an evacuation or notification of authorities. A debriefing at the LEPC meeting led to procedural changes and served as a spur to the school planning initiative.

The LEPC developed a sample plan outline and provided this guidance as part of a briefing delivered to all public and private elementary and high school principals to assist in the preparation of school contingency plans. The guidance addresses emergency notification of schools and the public and describes the overall communication policy. A school newsletter bulletin for parents, a school notification memo, a sample announcement for the radio Emergency Broadcast System, and a straightforward plan

assessment checklist were included. Individual schools develop plans to address their particular situation; some schools are just yards away from chemical facilities or railroad yards, while others are quite distant from any outside risk. These plans will be reviewed by local response officials, and comments and suggestions will be provided to the schools.

Exercises. Harford County participates in regular exercises in conjunction with the Aberdeen Proving Grounds facility. In the summer of 1990, APG and Harford County conducted a hazardous materials field exercise. The 1988 Combined Response Force Exercise (CRFX 88) was a field exercise simulating a release of mustard agent from unearthed munitions at APG. The 1988 Command Post Exercise (CPX 88) was a table-top exercise simulating a release of phosgene from a derailed railroad tank car. Both of these exercises used hypothetical toxic plumes modelled using the Computer-Aided Management of Emergency Operations (CAMEO) system developed by the National Oceanic and Atmospheric Administration and EPA. CAMEO also provided Response Information Data Sheets (RIDS), chemical-specific guidance similar to MSDSs oriented for response purposes.

Outreach. The LEPC, in conjunction with a local cable TV company, has developed a video, "Hazardous Materials in Harford County," which discusses public safety issues. The video was advertised in the local media and in bulletins which were mailed to community associations. It has been shown on the local cable television station, presented to community groups with a speech by an LEPC member, and is available at all public libraries. The video is designed to familiarize people with the hazards around them, and suggests that families conduct "chemical" drills in their homes in similar fashion to fire drills.

The LEPC has also developed a brochure "Stay Cool, Stay Alive," which explains what people should do in the event of a possible hazardous chemical incident if they are at home or on the road. The brochure has been distributed through the school system and to community groups. "Play It Safe: Handle Hazardous Materials with Care," a 20-page hazardous materials safety manual, has also been distributed to community groups at LEPC presentations. The LEPC has also distributed copies of the Department of Transportation's Emergency Response Guidebook to all fire, police, and public works department employees to improve response time and provide initial safety assistance to residents.

Training. The Department of Emergency Operations maintains a 14-member hazmat team composed of regular DEO employees and employees of local industry. The team has converted two school buses into response vehicles; one serves as a spill unit and the other as a command post and storage for Level A and B response equipment. The team conducts weekly training in Level A response operations and all members have been trained to Hazmat Technician level per Occupational Safety and Health Administration standards under 29 CFR 1910.120. DEO is now providing training and equipment to all twelve local fire departments, including training on spill containment and decontamination procedures. The hazmat team conducts an annual emergency exercise of either table-top or field varieties. DEO also invites outside organizations to conduct seminars in specific areas of expertise; the Centers for Disease Control has provided training on the chemical agents present at APG.

Funding. Harford County provides funding for a hazardous materials team and staff for the LEPC operations. FEMA, through the Army's Chemical Stockpile Emergency Preparedness Program (CSEPP) designed to support chemical emergency preparedness activities at the eight CSDP sites, also provides one emergency planner who participates in LEPC meetings and activities. In August of 1988, the LEPC organized a presentation to the Maryland Association of Counties' Annual Convention, aimed at building support for legislation that would help local jurisdictions recoup the cost of implementing Title III. This caucus formally resolved that the Governor and General Assembly establish a fee system or redirect general revenues to support the costs of data management and training at the local level.

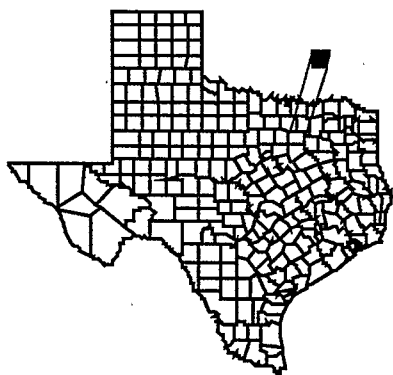
LESSONS LEARNED

Hazardous Materials Transportation Issues Cannot be Ignored. Initially, the Harford County hazardous materials preparedness activities had focused on incidents occurring at fixed facilities, such as chemical companies and water treatment facilities. The experience of the last several years, however, has shown that the I-95 corridor presents a much more significant risk in terms of hazardous materials events. Transportation incidents introduce a greater amount of uncertainty into a response operation; there is no facility representative or site plan, or even a file of MSDSs to identify the problem immediately. As a result, the hazmat team has had to focus on developing a library of research materials to identify the substances involved and proper response techniques for transportation incidents.

LEPC Meetings Can Serve an Expanded Role. The Harford County LEPC holds a debriefing session at the monthly LEPC meeting in which recent hazardous materials incidents in the county are discussed. Representatives from involved facilities are invited to attend and meet with members of the response community to discuss potential problems, as well as how the facility and community conducted the response and suggestions for improvements are considered. The recommendations are primarily incident-specific; for example, one facility has since paved its grounds and installed a berm and holding pond. These sessions have also helped to increase awareness of hazardous materials issues at facilities and provide chemical-specific information to local responders. Experience with handling less common chemicals such as methyl ethyl ketone and toluene diisocyanate has been provided to local responders by facility representatives at these sessions.

Contact: Barbara Risacher, Chair
Harford County Council
20 West Courtland Street
Bel Air, MD 21014
(301) 879-2000

Jim Terrell, Chief
Department of Emergency Operations
Hazardous Materials Team
2220 Ady Road
Forest Hill, MD 21050
(301) 838-5800



Use of Section 313 Data
Planning
Hazards Analysis
Exercises
Outreach
Funding

DALLAS COUNTY, TEXAS

LEPC:	33 members, including facility representatives, a state representative, city councilman, hazmat team director, and representatives from the Sierra Club; League of Women Voters; local police, emergency management, transportation, environmental, and fire agencies; Dallas-Fort Worth Hospital Council; local television and radio news stations; Chamber of Commerce; and the North Central Texas Council of Governments.
Population:	1,800,000
Facilities:	150 facilities reported under section 302, including chemical distributors and users, such as computer chip manufacturers, food processors, water treatment facilities, and engraving and plating operations; 1,500 facilities have reported under sections 311-312.

Dallas County is a primarily urban county located in north central Texas and encompasses 27 jurisdictions, including the city of Dallas and the Dallas/Fort Worth airport. The county includes five major railroads, numerous interstate highways, and major pipeline systems which carry a variety of hazardous materials.

The Fire Marshall's Office serves as the information coordinator for the LEPC. The Dallas County LEPC has formed five subcommittees to address the requirements of Title III: the Hazardous Material Facility Liaison Committee, the Emergency Response and Resources Committee, the Public Education and Information Committee, the Transportation Committee, and the Right-to-Know Committee. Each LEPC member serves on the subcommittee of their choice, many choosing the committee that best utilizes their expertise; for example, a media representative serves on the Public Education and Information Committee. The LEPC meets monthly and the Chair, Vice-Chair, and Secretary each serve a two-year term.

LEPC ACTIVITIES

Use of Section 313 Data. The Dallas County LEPC was the recipient of a fee waiver for the use of the Toxic Release Inventory (TRI) database. The TRI database contains the data submitted under Title III section 313 on chemical releases from manufacturing facilities. The fee waiver program, implemented through EPA's Office of Toxic Substances, provides LEPCs a waiver from the costs associated with accessing the TRI database for conducting research and data searches. The LEPC used the TRI data to examine the chemicals being emitted in their county and to compare those emissions to emissions in other counties in Texas. The LEPC has also used the TRI database to answer questions from the community regarding facilities in their areas. To alert the public that the LEPC has access to the TRI data, the LEPC broadcast radio announcements.

The Dallas County LEPC hopes to participate in any future fee waiver programs, and is already planning projects for using the data. With the LEPC's increased efforts in public education, interest in the TRI data has already increased. The LEPC is developing presentations about the TRI data to supplement the notices and radio announcements to guarantee increased community participation. In addition, the LEPC is looking forward to using the new TRI data to continue their study of the chemicals and emissions in their district as they compare to other districts.

Planning. There are three emergency planning programs in effect in Texas: the Federal Emergency Management Agency (FEMA) requirements for an all-hazards plan, the state's Texas Disaster Act of 1975 requirements, and the Title III emergency planning requirements. The FEMA planning requirements include planning elements for events such as tornadoes, floods, earthquakes, and other natural and man-made hazards. The Texas Disaster Act of 1975 places the responsibility for emergency planning on the mayor of the city or the county judge, in an unincorporated area. Title III places the responsibility for emergency planning on the LEPC and sets forth required elements for these plans.

The Texas SERC designated local emergency planning districts along county lines. The Dallas County LEPC has conducted its emergency planning efforts under Title III within the existing planning structure established under the Texas Disaster Act to prevent the development of duplicative planning bodies and plans. As a result, much of the city and area plans that were previously developed were incorporated into the Dallas County LEPC emergency plan.

The Dallas County LEPC encourages facilities that have reported under section 302 to develop and submit emergency plans to the LEPC on a voluntary basis, and to use the LEPC as a source of guidance and assistance for emergency planning. These facility plans, once developed, are kept by the LEPC and a copy is given to the fire department with jurisdiction over the facility.

The LEPC is coordinating its emergency response plan with neighboring LEPCs to insure that inter-jurisdictional issues are addressed. Each city is asked to coordinate their emergency response plan with neighboring cities to ensure that conflicts and duplication of efforts in multi-jurisdictional emergencies can be minimized. In order to test and coordinate their emergency plan with neighboring counties and to assist cities in testing and coordinating their plans with other cities, the LEPC is developing a table-top exercise, which is discussed in the exercises section of this profile.

The "Dallas County Hazardous Substance Emergency Response Plan" was completed and submitted to the SERC prior to the October 17, 1988, deadline. The plan is reviewed and revised annually. Dallas County encompasses 27 different jurisdictions. Prior to the enactment of Title III, only three jurisdictions had state-approved FEMA plans, five had no plans for chemical incidents, and the remainder had only outdated standard operating procedures. The LEPC estimates that most, if not all, cities will have emergency response plans that meet the Title III planning requirements by early 1991. The efforts of the Dallas County LEPC, in combination with the increased awareness of chemical hazards, has resulted in the steady and significant improvement of chemical emergency preparedness within the county.

Hazards Analysis. US EPA Region 6 and a consultant with Southern Methodist University assisted the Dallas County LEPC in developing fixed facility risk assessments. As part of this project, they developed a computer program to calculate simultaneously the vulnerability zones for a single chemical under varying atmospheric conditions.

In order to collect the facility-specific data necessary to conduct the risk assessment, the Dallas County LEPC developed a questionnaire which was sent to each facility that initially reported under section 302 as having extremely hazardous substances (EHSs) present on-site. The questionnaire requested more detailed chemical information than could be provided on a Tier I or Tier II report. The information requested included product name, EHS name, the chemical abstract service (CAS) registry number, molecular weight, density, melting point, boiling point, flash point, specific gravity, vapor pressure, type of storage container, maximum amount on hand and average daily amount (as an amount rather than a range), temperature of the stored chemical, form of the stored chemical, and the location of any diked storage.

Of the 250 facilities sent questionnaires, 80 percent responded. Of the 80 percent, 150 facilities had EHSs present above the threshold planning quantity (TPQ) amount, and the remainder did not but had notified anyway. The LEPC is developing the vulnerability zones for these facilities and each facility will receive a copy of the analysis for data verification. Once reviewed, the LEPC will both incorporate the analysis into their county-wide emergency plan and work with the North Central Texas Council of Governments to use the Geographic Information System, a computerized mapping system, to plot the vulnerability zones to identify vulnerability zone overlap and corridors of concern for future planning efforts.

Exercises. Members of the LEPC have served as responders and response officials in the capacity of their professions (e.g., fire fighters), however, not in their capacity as LEPC members. In order to create a more active role for the LEPC in incident response, the Dallas County LEPC is developing a generic table-top exercise. The purpose of this exercise is to test and evaluate multi-jurisdictional response and resource coordination. As a result, the generic exercise can be customized to involve any two cities or municipalities, any facility within the area, and any type of incident.

The first use of this exercise is scheduled for March 1991. The exercise will involve the cities of Dallas and neighboring Mesquite. The release will be a chlorine release from a truck accident on a major interstate, which borders both cities. Dallas County LEPC is working to develop the next table-top exercise, which will involve a release from a facility and require coordination between two counties and the facility response personnel.

Outreach. The Dallas County LEPC began their outreach efforts by targeting industry likely to be subject to Title III reporting to inform them of the requirements. Initially, the LEPC conducted two seminars with the Chamber of Commerce. As awareness of Title III grew, the LEPC was increasingly requested to make presentations and conduct training seminars. The requests came mostly from industry and trade associations; however, environmental and community groups also expressed interest. These presentations and seminars have been held twice a month, every month, over the last three years.

For the upcoming year, one of the major goals of the Dallas County LEPC is to shift outreach away from industry to public education. The LEPC is working on the development of a speakers roster to be distributed with a one-page fact sheet describing the LEPC, its purpose, and its activities to various community groups, such as the Rotary and Lions Clubs. Presentation materials, including a general video and slide presentation, are being developed. The LEPC is using its media representatives and other members of the Public Education and Information Committee to develop both a thirty second public service announcement to be broadcast on the local news radio station and a video to be shown on cable television.

Funding. Dallas County government allocates approximately \$6,000 per year to the LEPC. This money is primarily used for printing and postage and public outreach. No fee structure exists in Dallas County because the county does not have the authority to establish and collect reporting fees. In addition, the Texas Department of Health has announced plans to make small grants available to LEPCs for specific projects. The Dallas County LEPC hopes to utilize this avenue of funding to support a transportation risk assessment.

The majority of the administrative support for the LEPC is provided by the Fire Marshall's Office. Two county employees are on the staff of the LEPC — one from the Fire Marshall's Office and one from the Dallas County Institute of Forensic Sciences. These two county employees greatly assist the LEPC by developing materials such as fliers and presentation materials.

LESSON LEARNED

Improved Cooperation, Improved Emergency Plans. Many city and county planners became aware of the Title III planning requirements through seminars, publications, and word-of-mouth. As a result, many city and county planners voluntarily upgraded their existing city plans or county plans developed under either their own standards or those of the Texas Disaster Act to conform to the Title III standards. In addition, jurisdictions are more aware of the importance of multi-jurisdictional planning, particularly for chemical releases. Title III, through the establishment of the LEPC, has formed a nucleus for communication and planning among jurisdictions within Dallas County.

Improved Outreach, Improved Awareness, Improved Information. The Dallas County LEPC's extensive outreach efforts to facilities in the county regarding Title III has greatly improved the quality and quantity of specific facility chemical information. Subsequently, this improved and enlarged amount of information is now more readily available to emergency responders and to the general public. The 500 pound threshold, established by the State of Texas for all OSHA hazardous substances reinforces the growing awareness that even small amounts of chemicals can be hazardous when handled improperly. Title III has improved the chemical awareness among not only facilities, but also emergency planners, emergency responders, and the general public.

Contact: Dr. Elizabeth Todd, PhD, Chair
Dallas County Local Emergency Planning Committee
Dallas County Institute of Forensic Sciences
5230 Medical Center Drive
Dallas, TX 75235
(214) 920-5990

More Successful Practices

Additional **Successful Practices in Title III Implementation** technical assistance bulletins are available from your Regional Chemical Emergency Preparedness and Prevention Coordinator (see the listing on the following page), or call the Emergency Planning and Community Right-to-Know Information Hotline at (800) 535-0202. The following bulletins are currently available:

Successful Practices #1

Doc. # OSWER-89-006.1, January 1989.

- State of Kansas
- Washtenaw County, Michigan
- Butler County, Kansas
- Jefferson County, Kentucky

Successful Practices #2

Doc. # OSWER-89-006.2, August 1989

- Calhoun County, Alabama
- Pampa, Texas
- State of Wisconsin
- Cuyahoga County, Ohio
- Racine County, Wisconsin
- State of Idaho

Successful Practices #3

Doc. # OSWER-89-006.3, December 1989.

- Woodbury County, Iowa
- State of Virginia
- Fairfax County, Virginia
- Pierce County, Washington

Successful Practices #4

Doc. # OSWER-90-006.1, March 1990.

- New York, New York
- El Paso County, Colorado
- Alexandria, Virginia
- State of Maine

Successful Practices #5

Doc. # OSWER-90-006.2, June 1990.

- Tinker Air Force Base, Oklahoma
- State of Connecticut
- Cumberland County, Maine
- Wyandotte County, Kansas

Successful Practices #6

Doc. # OSWER-90-006.3, September 1990.

- State of Ohio
- Hamilton County, Ohio
- Wallingford, Connecticut
- Ouachita Parish, Louisiana

Successful Practices #7

Doc. # OSWER-91-006.1, February 1991.

- Cameron County, Texas
 - Bucks County, Pennsylvania
 - Harford County, Maryland
 - Dallas County, Texas
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Regional Chemical Emergency Preparedness and Prevention Coordinators

Ray DiNardo
EPA - Region 1
New England Regional Lab
60 Westview Street
Lexington, MA 02173
(617) 860-4300

John Ulshoefer
EPA - Region 2
Woodbridge Avenue
Edison, NJ 08837
(908) 321-6620

Karen Wolper
EPA - Region 3
841 Chestnut Street
Philadelphia, PA 19107
(215) 597-8751

Henry Hudson
EPA - Region 4
345 Courtland Street, NE
Atlanta, GA 30365
(404) 347-1033

Mark Horwitz
EPA - Region 5
230 South Dearborn
Chicago, IL 60604
(312) 886-1964

Jim Staves
EPA - Region 6
Allied Bank Tower
1445 Ross Avenue
Dallas, TX 75202-2733
(214) 655-2270

Ron Ritter
EPA - Region 7
726 Minnesota Avenue
Kansas City, KS 66101
(913) 551-7005

Cheryl Chrisler
EPA - Region 8
One Denver Place
999 18th Street, Suite 1300
Denver, CO 80202-2413
(303) 293-1723

Kathleen Shimmin
EPA - Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-2100

Walt Jaspers
EPA - Region 10
1200 6th Avenue
Seattle, WA 98101
(206) 553-4349

States by Region

4 - Alabama
10 - Alaska
9 - Arizona
6 - Arkansas
9 - California
8 - Colorado
1 - Connecticut
3 - Delaware
3 - D.C.
4 - Florida
4 - Georgia
9 - Hawaii
10 - Idaho
5 - Illinois
5 - Indiana
7 - Iowa
7 - Kansas
4 - Kentucky
6 - Louisiana

1 - Maine
3 - Maryland
1 - Massachusetts
5 - Michigan
5 - Minnesota
4 - Mississippi
7 - Missouri
8 - Montana
7 - Nebraska
9 - Nevada
1 - New Hampshire
2 - New Jersey
6 - New Mexico
2 - New York
4 - North Carolina
4 - North Dakota
5 - Ohio
6 - Oklahoma

10 - Oregon
3 - Pennsylvania
1 - Rhode Island
4 - South Carolina
8 - South Dakota
4 - Tennessee
6 - Texas
8 - Utah
1 - Vermont
3 - Virginia
10 - Washington
3 - West Virginia
5 - Wisconsin
8 - Wyoming
9 - American Samoa
9 - Guam
2 - Puerto Rico
2 - Virgin Islands

